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L HAMILTON COLISEUM
ECONOMIC FEASIBILITY STUDY

An Analysis of
Capital & Operating Costs
and Potential Revenues

November 5, 1976

MOFFAT MOFFAT & KINOSHITA
Architects & Planners

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November 5, 1976

Mr. J.R. Jones
Secretary, Board of Control
Hamilton City Hall
71 Main St. West
Hamilton, Ontario
L8N 3T4

Re Proposed Hamilton Coliseum
Economic Feasibility Study

Dear Mr. Jones:

The following Report concludes our study of the Capital Costs together with the Potential Revenues and Operating Costs for the proposed Hamilton Coliseum.

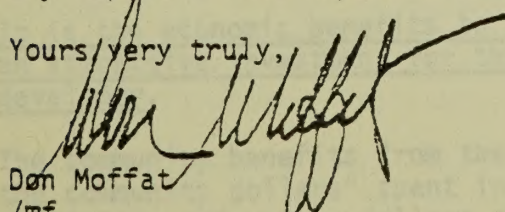
The Capital Costs have been adjusted to reflect further information gathered on other coliseums, and minor adjustments to the Land Values to reflect demolition costs.

The Construction Capital Cost of three coliseums has been excluded from the Capital Cost Range, as factors not common to the proposed Hamilton facility tended to distort the Cost Range.

Although time limitations precluded a more in-depth analysis of the Capital Costs, Potential Revenues and Operating Costs, the information gathered highlights some of the major financial considerations in undertaking such a project.

As indicated previously, we are indebted to the cooperation of City Staff in the preparation of this Report. We will be pleased to discuss any aspect of the Report with the Board of Control.

Yours/very truly,



Don Moffat
/mf

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SUMMARY

Revenues vs. Expenditures

Time limitations have precluded a more in-depth analysis of some issues within the framework of Capital Cost, Potential Revenues and Annual Operating Costs. However, the Report does highlight some of the major financial considerations in undertaking a project of this size and scope.

The study of the Capital Costs and Annual Operating Costs, together with Potential Revenues, points out the difficulties faced by private enterprise in undertaking such a project.

Although Potential Revenues would appear to cover the Annual Operating Costs with some surplus, it is difficult to foresee them rising in the near future to a point where they would cover the cost of debt financing.

Private enterprise would have to substantially reduce the Construction Costs, perhaps to the detriment of the users, and seek a suburban site of lower land value, or a subsidized urban site. In addition, it is quite likely that private enterprise would have to seek relief from what apparently will become substantial municipal taxes under the proposed Land Tax reform.

There are obviously certain risks associated with the development of Potential Revenues for the project. It is therefore important, that at the appropriate time the City actively promote the use of the facility for the wide range of events possible in the facility, and seek a hockey franchise.

If the Coliseum had to be reduced in scope, perhaps with a reduction in the facilities available, and locate it on a suburban site, the potential benefits to the community as a whole would likely be reduced substantially. These factors could also affect the Coliseum's ability to attract potential revenues.

There are substantial economic benefits to the community if the Coliseum is located in the downtown area.

It is the economic benefits to the community which could make the Coliseum an attractive investment for the City yet not attractive to the private developer.

The community benefits from the indirect revenues, the benefit of "outside the community dollars" spent in the community to create the "community multiplier effect" on dollars spent within the community, and additional Municipal, Provincial and Federal taxes.

In our original submission, it was suggested that a study of these indirect revenues, the "community multiplier effect", and additional Municipal, Provincial and Federal taxes, could be analyzed if adequate time was available. Unfortunately, adequate time was not available, and the reliability of any information gathered is therefore questionable. However, it is worthwhile to comment upon these factors.

Indirect Revenues

Indirect Revenues would consist of:

- . jobs directly connected to the operation of the Coliseum and the effects of these people spending money within the community.
- . the payrolls for a hockey team or other teams based in the Coliseum, and the effect of these individuals spending money in the community.
- . the expenditures on hotel accommodations, meals, transportation and miscellaneous items for visiting teams and those directly involved in staging the many events in the Coliseum.
- . the accommodation, meals, transportation and miscellaneous expenditures of that portion of the audience attending events and staying overnight.
- . the meals, transportation, and miscellaneous expenditures of those people who attend an event for a day and then return home.

Although no reliable data is available, it is possible that indirect revenues from these sources could exceed \$5 Million annually, based on the estimate of 150 events and some One Million people attending the various events.

It has been estimated for instance, that the addition of the Baseball Blue Jays to the Metropolitan Toronto area will result in a direct payroll of \$1 Million and an indirect payroll of another \$1 Million. It is further estimated that fans from outside the Metro area will spend a minimum of \$7 Million on accommodation, meals and transportation, and home fans will spend another \$6 Million attending and participating in the baseball spectacle. Visiting teams, media and associated personnel will spend another \$1 Million.

In total, it is estimated that there will be a direct injection of approximately \$14 Million into Metro Toronto's economy as a result of the new Toronto Blue Jays baseball team.

Community Multiplier Effect

The philosophy behind the term "community multiplier effect" is that a dollar derived from outside the community and spent within the community is equivalent to two and a half or three times the equivalent dollar generated from within the community.

The effect of these "outside dollars", is to generate new jobs in the hotel, restaurant, retail and transportation businesses which in turn mean continuing expenditures within the community.

It has been estimated, for instance, that the \$14 Million annual injection of indirect revenues in the Metro Toronto community by the Toronto Blue Jays will result in a community benefit which should exceed \$50 Million annually.

Additional Municipal, Provincial and Federal Taxes

Again, insufficient time was available to analyze the increased taxes which would be provided by the Coliseum due to the influx of people attending events. The additional taxes could be used to offset the cost of debt servicing related to the Capital Cost and should be the basis of further study. It will also be useful to know the extent of increased Provincial and Federal Government taxes, particularly when related to grants which might be obtained from these levels of government.

Downtown vs. Suburban Site

Studies of other coliseums clearly indicate that there is a direct relationship between the economic success of the Coliseum and its location in a downtown area. Although a coliseum located in a suburban area can still attract major events, they are looked upon less favourably by those seeking convention sites and those requiring the amenities of the downtown core including lodging and restaurant facilities. The added cost of transporting people to and from a suburban site can become a major factor in the decision of the convention committee when considering a potential convention site.

The new Cleveland Coliseum is located on a suburban site. The recent attendance of some 3,000 people at a game between the Toronto Maple Leafs Hockey Team and the Cleveland Hockey Team appears to be evidence of this problem.

Parking

The question of whether adequate parking was available in the downtown core for both the Coliseum and the retail businesses has been raised. Obviously this question needs to be studied in more detail to determine whether, in fact, adequate parking is available.

It should be noted that many of the coliseums contacted looked upon parking charges as a profitable source of revenue when related to the capital and operating costs of providing parking, either in the form of surface parking lots or parking structures.

RANGE OF CAPITAL AND OPERATING COSTS

CAPITAL COSTS

Sum of 3,400,000 + 6,800,000

1. LAND VALUES

Site #6	(a)	\$ 3,400,000				\$ 3,400,000	to	\$ 8,545,000
	(b)	\$ 175,000	(possible purchase price)					
Site #7		\$ 4,974,000						
Site #13		\$ 8,545,000	<i>Copy Notes & Records</i>					
Site #14		\$ 6,800,000						

2. BUILDING CONSTRUCTION COST (Based on survey of existing coliseums)
(Start Nov. 1/76 - complete 18 months later)

3. SITE SERVICES including landscaping and staff parking only

4. ASSOCIATED PROJECT CAPITAL COSTS: including Architectural, Engineering, Legal Fees, soil test, surveys, etc.
(approx. 10% of Construction Cost)

TOTAL CAPITAL COST RANGE \$ 20,440,000 to \$ 30,515,000

OPERATING COST (calculated in 1979 dollars)

1. ADMINISTRATION	\$ 175,000	to	\$ 200,000
2. PROMOTION	\$ 80,000	to	\$ 90,000
3. BOX OFFICE	\$ 80,000	to	\$ 90,000
4. GENERAL BUILDING MAINTENANCE	\$ 215,000	to	\$ 240,000
5. EQUIPMENT OPERATION REPAIR & MAINTENANCE	\$ 250,000	to	\$ 350,000
	<i>200,000</i>		<i>320,000</i>

SUB TOTAL \$ 800,000 to \$ 970,000

750,000 to 950,000

6. TAXES: REALTY \$ 400,000 to \$ 430,000
BUSINESS \$ 200,000 to \$ 200,000

TOTAL ANNUAL OPERATING COSTS RANGE \$ 1,400,000 to \$ 1,600,000

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Sum of 3,400,000 + 6,800,000

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TOTAL ANNUAL OPERATING COSTS RANGE \$ 1,400,000 to \$ 1,600,000

THE RANGE OF CAPITAL & OPERATING COSTS, AND POTENTIAL REVENUES

General

The Range of Capital and Operating Costs as outlined on Chart No. 1 have been divided as follows:

Capital Costs:

- . Land Values
- . Estimated Building Costs
- . Estimated Site Services Costs
- . Estimated Associated Project Costs

Potential Revenues:

- . Net Annual Facility Rental
- . Net Annual Concession Revenue

Operating Costs:

- . Administration
- . Promotion
- . Box Office
- . General Building Maintenance
- . Equipment Operation Repair & Maintenance
- . Municipal Taxes

CAPITAL COST RANGE

Land Values

- . The land values and site sizes have been taken from information contained in the Administrative Committee's Report on the Coliseum, and further information received from the Real Estate Department concerning the estimated cost of business disruption and business

relocation cost. The cost of demolition of existing structures has also been added to the value of the land.

It was felt that this data was sufficiently accurate for purposes of this Study.

Land costs have been related directly to the suggested value of the four sites in the downtown area. These sites include:

- . Site No. 6 - Phase 6, Lloyd D. Jackson Square
- . Site No. 7 - The west side of Bay Street North between Market Street and York Street
- . Site No. 13 - Northwest corner of Merrick Street and James Street North
- . Site No. 14 - West side of James Street between Merrick Street and Cannon Street

Details of these sites are included in the Administrative Committee's Report. These areas represent an interesting cross section of potential sites in that they involve varying degrees of public and private ownership, bare land vs. land occupied by existing businesses and business structures, and a variety of zoning restrictions to be resolved.

The value of Site No. 7 has been adjusted to reflect the estimated value of the entire site including the former Eaton's warehouse building presently occupied by the Post Office.

The value of Sites 13 and 14, have been revised to reflect estimated cost of business disturbance and relocation costs.

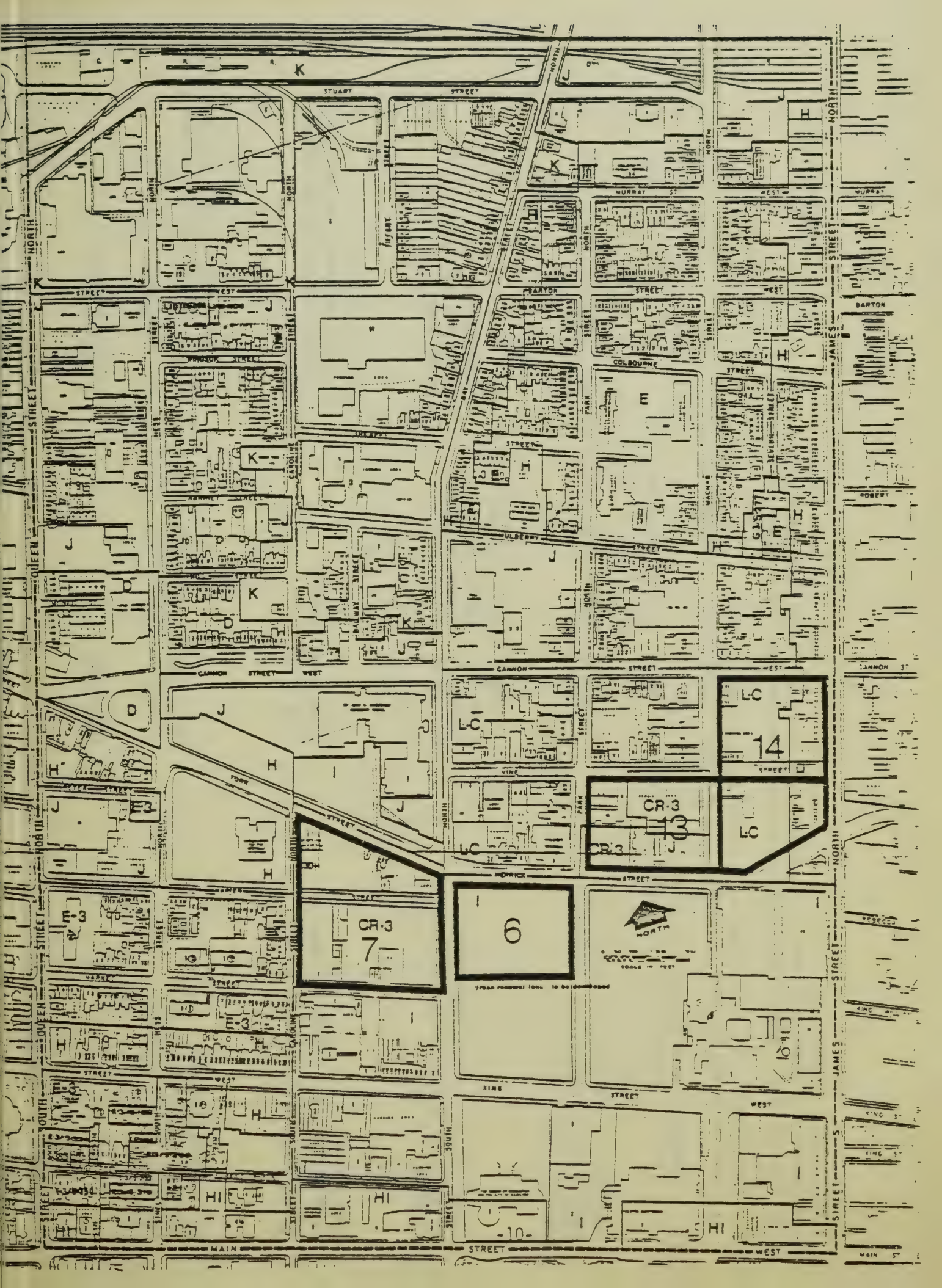
The Coliseum may require slightly more or less land than presently shown for the various sites. However, all sites have some flexibility for expansion or contraction. The actual site size requirements will depend on the specific design of the building and its vehicular access and exit requirements.

It should be noted that site size and land values vary considerably for the four sites.

- . Sites 7, 13 and 14 require re-zoning which will necessitate O.M.B. approval.
- . Sites 13 and 14 require expropriation of existing businesses. The estimated cost of expropriation has been included in the value placed on these lands.

- . Site 13 includes a premium site cost for the relocation of an existing sewer.
- . Site 7 will require the demolition of an existing warehouse structure and a woodframe building. It is estimated that demolition would cost \$215,000.
- . Site 13 would require the demolition of a warehouse type structure and several stores. It is estimated that demolition would cost \$270,000.
- . Site 14 would require the demolition of existing stores and other structures. It is estimated that demolition would cost \$200,000.
- . The existing available information concerning sub-surface soil conditions for the four sites has been reviewed. No unusual conditions appear to exist which could lead to a premium cost for building foundations.

As there is such a variance in the estimated value for these sites, no attempt has been made to suggest an average value. The final cost for any of these sites will, of course, be determined through negotiation. However, the values established for the sites are useful for comparative purposes and in assessing the approximate total Capital Cost of the Project.



COMPARISON OF LAND VALUES AND SITE SIZE

<u>TOTAL AREA</u>	<u>ESTIMATED VALUE</u>
Site No. 6 * Lloyd D. Jackson Square Phase 6 - S.E. Corner of Bay & Merrick Street	a) \$3,400,000 b) it may be possible to purchase for approximately \$175,000.
Site No. 7 100 Market Street Site plus City properties - S.W. Corner of York & Bay Street	\$4,974,000 (includes value of the former Eaton's warehouse building and demolition costs)
Site No. 13 ** North side of Merrick Street between James St. North and Park Street	\$8,545,000 (includes \$500,000 for sewer relocation)
Site No. 14 ** West Side of James Street between Merrick St. & Cannon St. West	\$6,800,000
* The site numbers refer to references established in the City of Hamilton Administrative Committee's Report on the Coliseum.	
** The value established for these sites includes an estimate of the business disturbance and relocation cost, together with demolition cost.	
The information included on this Chart was obtained from the City of Hamilton Administrative Committee Report and contact with the Real Estate Department for the City of Hamilton.	

Building Construction Cost

The Range of Building Construction Cost has been determined from data gathered on existing coliseums constructed recently.

This data has been extrapolated to reflect the suggested requirements for a multi-purpose auditorium located in Hamilton. The cost of those facilities not required in the Hamilton Coliseum has been taken out for purposes of comparison. Construction costs of the existing facilities have been upgraded to today's costs (November 1, 1976) and to reflect comparative construction costs in the Hamilton area.

The building construction cost has been calculated on the basis that construction would start immediately - November 1st - and be completed in 18 months. Although this schedule is not possible, it is also not possible to predict at this time how long the site selection, O.M.B. approval and the design process might take.

However, the correlation which exists between the start of construction, its completion and the commencement of Operating Costs and Revenues would remain constant.

Assuming cost escalation will equally affect Capital and Operating Costs as well as potential Revenues, the relationship between these costs will remain constant.

It is of interest to note that construction costs have not escalated at above the rate of the Consumer Price Index. They have, in fact, over the last five years risen at a slightly lower rate.

An allowance has been made in the construction cost for all seating, press box accommodation, special scoreboard requirements, audio systems, ice making facilities, special lighting, ice cleaning equipment and all loose furniture. No allowance has been made for special facilities which may be required, if Hamilton were to host the Pan Am Games.

The actual construction cost will be directly related to the quality of the building and its equipment, together with the size of the structure and its specific building programme requirements.

The quality of the building and equipment will have a direct effect on energy utility, maintenance and operation costs as well as equipment replacement cost.

There has been some debate as to the need for extra parking facilities in the downtown area. This could either take the form of surface parking or a parking structure. This would require further study. However, it is also assumed that the Capital Cost allocated to parking facilities

would be directly related to the potential parking revenues. Under these circumstances, it should not directly affect the Capital Cost of the Coliseum facility.

No attempt has been made to correlate the estimated construction cost for the Yarmon proposal on the 100 Market Street property, or the City's estimated construction cost for the Coliseum, with information gathered on existing completed arenas. The Yarmon proposal and the City's estimates are not based on a completed building project. It would therefore be unrealistic to correlate them with the completed construction cost of other projects.

Site Services

An allowance has been made for connecting the building services to the existing site services. The allowance also includes funds for landscaping and the minimum parking requirements for staff, Coliseum and delivery vehicles.

An allowance for the premium cost of relocating a sewer through Site No. 13 has been carried in the Land Cost for this site.

No allowance has been carried for extra public parking, as it has not been determined how much, if any, would be required in the downtown area.

There is a considerable range in the estimates for the Site Services due to the variety of sites being considered.

Associated Project Capital Costs

The professional fees of Architects, Engineers, Lawyers, Cost Consultants and Special Consultants, together with the cost of surveys, soil tests, public relations, models, etc. have been carried in this amount.

The costs have been based on the minimum suggested Fee Schedules for Architects and Engineers. An allowance has been made for cost, legal and special consultants, as well as surveys, soil tests, public relations, etc.

It is estimated that these costs would amount to approximately 10% of the construction cost.

HIGHLIGHTS OF ANNUAL FINANCIAL OPERATING PROJECTIONS

Introduction

This section discusses the highlights of the annual financial operating projections in a typical year after the Coliseum has achieved its full operating potential. The following three sections support these projections through a description of the proposed Method of Operation and a more detailed consideration of the Potential Operating Revenues and the Projected Annual Operating Costs that went into the preparation of these highlights.

Considering the number of critical unknown factors which could affect both potential revenues and operating costs, the highlights are presented as a range within which we believe the Coliseum could be operated. Before committing public funds to development of a project of this size, the City may wish to undertake a more thorough study of the potential market for the various types of attractions which would occupy the Coliseum. Such a study should parallel the early stages of the detailed planning for the facility in order to have an impact on those special features which should be incorporated into the design of the building and equipment. The likelihood of the Coliseum obtaining a principal tenant such as a professional hockey franchise must be considered carefully. This could involve seeking out a potential owner or owners with the financial backing required to operate a franchise in Hamilton. The expressed good wishes of N.H.L. or W.H.A. league offices cannot be interpreted as an indication that a franchise will be forthcoming automatically with the opening of the Coliseum.

The projections do not include any provision for debt servicing (either interest or principal repayment) as investigation of capital funding alternatives was beyond our terms of reference. The cost to the City for debt servicing will, of course, depend upon the degree of financial participation that may flow from the Federal and/or Provincial Governments, government agencies or private sources. The level of senior government funding assistance may in turn be tied to such important questions as to whether Canada is successful in being granted the 1983 Pan American Games, which we understand the Federal Government has promised to Hamilton. The table of Highlights of Annual Financial Operating Projections opposite the following page is, therefore, restricted to operating considerations exclusive of debt servicing costs.

Also excluded from our consideration of the operating results is the ripple effect which construction of the Coliseum would have on the Hamilton economy. It is well accepted that a major facility such as the

HIGHLIGHTS OF ANNUAL
FINANCIAL OPERATING PROJECTIONS
(Note: These figures exclude provision for
capital debt servicing.)

	<u>Best</u>	<u>Worst</u>
<u>Potential Revenues</u>		
Facility rental	\$ 820,000	\$670,000
Concessions	250,000	210,000
Advertising	80,000	70,000
	<u>1,150,000</u>	<u>950,000</u>
 <u>Operating Costs</u>		
Administration	175,000	200,000
Promotion	80,000	90,000
Box Office	80,000	90,000
General Building Maintenance	215,000	240,000
Equipment Operation, Repair and Maintenance	200,000	320,000
	<u>750,000</u>	<u>950,000</u>
Net Operating Surplus Before Taxes	400,000	Ø
Realty and Business Taxes	600,000	650,000
Net Operating (Deficit)	<u>\$ (200,000)</u>	<u>\$(650,000)</u>

Source: Woods, Gordon & Co.

proposed Coliseum will act as a strong stimulus to local business. The impetus this project might give to the tourist industry generally and to downtown hotels, restaurants and merchants in particular, should play a leading role in deciding the course of future development for this important Hamilton project.

Explanation of the Table of Operating Highlights

The highlights on the table opposite project the range of operating results that may be expected in a "typical year" following the realization of full market potential of the Coliseum. This "typical year" will not likely be achieved until about the third or fourth year of operation. The occupancy levels upon which our range of revenue projections are based could require this length of time to reach maturity. Depending upon the success of early promotional efforts, the operating results of the first two or three years may be expected to be somewhat below the range stated. The table is intended solely as a guide to City decision makers as to whether further study and development of the project is warranted.

On the assumption that approval was given to proceed with the project immediately, it has been estimated that the design and construction time necessary to complete the facility would allow 1979 to be the first full year of operation. Thus the projected cost figures are appropriately expressed in 1979 dollars. In order to be consistent potential revenues have also been expressed in similar 1979 dollars although, as indicated, there are reservations about attaining the occupancy levels on which these revenue figures are based in the first year of operation. Since the inflationary effect on these projections may be expected to influence both costs and revenues equally, and since costs and revenues are in approximate balance, the usefulness of the table as a guideline to future operating results is not lessened through the inability to project the exact year of full potential occupancy with more authority.

As indicated by the table, even in the worst situation, the Coliseum may be expected to break even before consideration of debt servicing, realty and business taxes. Under the best circumstances we can foresee, the Coliseum would achieve an annual operating surplus of \$400,000, again before debt servicing, realty and business taxes.

The consideration of tax costs after all other costs is important since realty and business taxes on a City owned building in fact represent nil cost to City taxpayers. Further discussion of this point is contained in the subsequent section dealing with Projected Annual Operating Costs. From the standpoint of the Coliseum operation itself, these tax costs must be included, with the result that an annual operating deficit may be expected ranging from a low of \$200,000 to a high of \$650,000.

METHOD OF OPERATION

Outline

In order to estimate annual operating costs and revenues, it is essential that the proposed method of operation of the coliseum first be considered carefully. Most publicly owned multi-purpose arenas in North America are operated primarily as rental facilities available to local sports franchise holders and touring show promoters. It is these outside people who customarily look after the actual promotion and staging of the particular event for which they have contracted to rent the facility. Prominent among the clauses in most rental contracts is the requirement that the team or promoter will reimburse the arena management for those incremental costs (such as ticket takers, ushers, extra security, special equipment rental, etc.) incurred for the purpose of staging his attraction. Since such costs are recoverable from the team or promoter, they have been excluded from both costs and revenues for the purpose of generating operating projections in this report. This approach conforms with the prevailing practice followed by other similar facilities contacted.

It has been assumed that the Hamilton Coliseum will be operated on the same basis as most other publicly owned facilities of a similar nature in Canada and the United States. In addition to the factors discussed above, the principal features of such operation as they influence operating costs are:

1. The numbers of permanent employees of the Coliseum will be held to the minimum required for effective general operation. Temporary staff will be hired for specific events only and the cost will be charged back to the parties staging those events.
2. In addition to use of the facility, the only other service which will be covered by the basic rental rate will be general box office staff services.
3. Operation of concessions within the facility will be tendered to outside concessionaires. Therefore, there is no cost to the Coliseum for operating such concessions. Revenues from concessions represent a percentage of the gross sales of the concessionaire..
4. Since there will be no spectator parking provided, there is no cost or revenue from operating parking facilities.
5. Although some cost savings may be attained through joint administration with other City owned or operated facilities, we have assumed a completely separate administrative group for the Coliseum for purposes of generating operating costs.

These projected results suggest that the Coliseum project would be unattractive from a private investment standpoint. This is not surprising when one considers that the majority of such facilities constructed in the 1970's in North America are municipally owned. To the private investor the tax costs do, of course, represent a real cost. He cannot hope to break even under the best foreseen circumstances even before providing for interest on his capital investment, unless he were able to obtain major concessions from the City. Further development of this project must, therefore, depend realistically upon financial support from public funds, with possible assistance of a private subscription campaign. From the standpoint of cost to the City and City taxpayers the level of senior government participation in the funding appears to be the most critical question which must be answered at the earliest date possible.

The following three sections discuss the various factors and assumptions that went into the development of the Highlights of Annual Financial Operating Projections.

6. The operating cost estimates provide for the significant promotion costs which our market analysis work indicates will be necessary to achieve potential occupancy levels. Promotional efforts would be directed toward sports leagues, show promoters, booking agents and promotion of the facility generally throughout the southern Ontario and border state market area.

Management Autonomy

An important consideration mentioned by a number of other facility managers concerns the need for management autonomy in operation of the Coliseum. As a City owned enterprise it is only reasonable that the General Manager of the Coliseum be responsible ultimately to a Committee of City elected officials and/or civic employees. However, the authority of this Committee should be restricted to review and approval of the annual budgets submitted by the General Manager and to providing general operating policy guidelines. According to the experience of other coliseum type facilities, the best guarantee of a successful operation appears to be through engaging a top flight professional manager who will have full authority over the day-to-day management of the Coliseum.

POTENTIAL ANNUAL REVENUES

Introduction

This section of the report discusses those factors which will influence potential annual revenues and estimates those revenues by categories.

Methodology

The revenue estimates are based on both statistical data and industry opinion. This information was gathered from a preliminary survey of published statistical data and trends, in conjunction with a limited field interview survey covering persons actively involved in managing similar coliseum operations, touring show promoters, sports franchise representatives and industry association representatives. The field survey was limited by the tight time deadlines of the study program. A list of contacts made during this field survey is presented in Appendix 3.

The Mass Entertainment Industry

The mass entertainment industry is concerned with promoting and accommodating events which will attract audiences of up to 100,000 persons or more. Over the past five to ten years the growth of new facilities and the updating of existing structures has taken place at a relatively rapid pace throughout North America.

Most industry representatives contacted are "bullish" about the overall future of the mass entertainment industry. Many successful touring show promoters (e.g. Ice Capades, Ice Follies, Ringling Brothers Circus, etc.), have added one or more complete touring shows and anticipate future growth. There is a demand for more types of touring shows to play in the new, modern coliseums as well as potential for existing shows to increase their market penetration. Thus, the market does not appear to be saturated.

However, with regard to professional sports entertainment, indications are that the major sports leagues are having financial difficulties. In particular, MacLean's Magazine reported in 1975 that at that time, after three years of operation, none of the World Hockey Association teams had made a profit. Their survey indicated that most hockey experts expected the WHA to follow the WFL (World Football League) into "early retirement".

POTENTIAL ATTENDEES TO HAMILTON COLISEUM WITHIN
25 AND 50 MILES TRADING AREAS

<u>1. Within 25 miles</u>	<u>1975 Population Estimate</u>	
Metropolitan Hamilton	414,800	
Brantford	100,800	
Guelph	119,500	
Burlington	105,000	
Oakville	63,000	
Mississauga	<u>225,000</u>	1,028,100
<u>2. From 25 to 50 Miles</u>		
Kitchener - Cambridge	282,900	
St. Catharines - Niagara	363,100	
Buffalo	1,330,000*	
Metropolitan Toronto	2,425,300	
Niagara Falls, N.Y.	237,900	
Brampton	<u>42,500</u>	4,681,700
<u>3. Total Within 50 miles</u>		<u>5,709,800</u>

* Although Buffalo is about 65 to 70 miles from Hamilton it would constitute part of the Hamilton trading area for major events.

Source: Sales and Marketing Management Magazine
Statistics Canada Census Data
Woods, Gordon & Co.

Note: These population figures include immediate suburban areas around the centres listed. The centres listed include only relatively major areas of concentrated population and exclude a substantial rural population within both 25 and 50 miles of Hamilton.

The National Hockey League has also had certain financial problems particularly in Oakland and Pittsburgh. The former franchise has moved to Cleveland (a failure as a WHL city) and is not drawing satisfactory attendance levels at this time. In addition, Detroit and Chicago, both long established franchises, are having trouble drawing 10,000 persons at the gate.

The NBC network has dropped its renewal option on television rights for this year's NHL season, and "Hockey Night in Canada" - for years the most watched television program in Canada - has cut its production by 25%. NHL president Clarence Campbell was reported as saying: "I don't think anybody in sport is making any money right now".

The future of professional hockey leagues and individual franchises should be investigated in more detail as a professional hockey team drawing satisfactory attendance levels would be critical to attaining the revenue estimates discussed later in this section.

Market Trading Areas

As shown by the table opposite, Hamilton has an unusual trading area characteristic. Although the City of Hamilton and immediate suburbs have a population of less than 500,000 persons, the area within 25 miles of the City has over 1,000,000 residents.

Moreover, within a 50 mile radius (i.e. within about one hour's driving time) there are close to 6,000,000 residents. These trading area characteristics compare favourably with those of a number of other existing facilities presented in a table on the following page.

On average, Hamilton may have somewhat fewer residents within 25 miles of the City than most other facilities but, with the exception of the New York City - Nassau County area, it has more people within 50 miles than any of the facilities listed.

Within this potential market area the effective attendance radius is expected to vary according to the type of event in the Coliseum. For example, it is expected that a professional hockey team would have to be supported by a local audience on a regular basis. On the other hand, a major rock group or name performer would attract attendance from as far away as Buffalo and Niagara Falls, N.Y. as well as from Metropolitan Toronto.

**TRADING AREAS AND ATTENDANCE POTENTIAL
AT OTHER COLISEUMS IN NORTH AMERICA**

Name of Arena/Colliseum	Location	Population Trading Area		Seating Capacity	
		Within 25 Miles	Within 50 Miles	Permanent	Temporary Maximum
Hamilton Colliseum (Proposed)	Hamilton, Ontario	1,000,000	6,000,000	15,000	2-3,000 17-18,000
Buffalo Memorial Colliseum	Buffalo	1,750,000			16,400
Oakland - Alameda County Colliseum	Oakland	3,000,000	5,000,000	10,850	3,350 14,200
McNichol Sports Arena	Denver	500,000	1,500,000	16,500	
Market Square	Indianapolis	1,500,000	2,500,000	16,000	2,000 18,000
St. Paul Civic Centre	St. Paul	1,200,000	1,800,000	15,700	3,300 19,000
Kemper Arena	Kansas City	580,000	1,300,000	16,000	2,000 18,000
Nassau Colliseum	Nassau County	6,000,000	11,300,000	14,500	2,000 16,500
Madison Square Garden	New York City	15,000,000		17,500	2,500 20,000
PNE	Vancouver	1,000,000	1,500,000	15,600	2,000 17,600
Birmingham Civic Centre	Birmingham	1,500,000		16,700	2,300-2,800 19-19,500
Montreal Forum	Montreal	2,500,000		16,500	1,200 17,700
Maple Leaf Gardens	Toronto	2,500,000		16,000(e)	2,500(e) 18,500(e)
Edmonton Colliseum	Edmonton	650,000		15,300	1,600 16,900

Source: International Association of Auditorium Managers
Woods, Gordon & Co.

(e) estimate.

HAMILTON COLISEUM

NET ANNUAL FACILITY RENTAL REVENUE AND NET ANNUAL CONCESSION REVENUE (Based on a typical year following attainment of full occupancy potential) - 1979 Dollars -

Event	No. of Events	Average Attendance	Total Annual Attendance	Net* Average Ticket Price	Total Annual Revenues	Rental** Arrangement (minimum/% of gross)	Net Annual Facility Rental (Rounded)	Gross Concession Revenue/ Attendee	Net Annual Concession Revenue (at 30% of Gross-Rounded)
Professional Hockey	40	8,000	320,000	\$5.50	\$1,760,000	\$2,500/10%	\$176,000	\$1.00	\$ 96,000
Junior Hockey	40	3,000	120,000	3.00	360,000	12%	40,000	0.60	22,000
Circus	8	7,000	56,000	5.50	308,000	3,500/12%	37,000	0.80	13,000
Ice Shows	16	7,000	112,000	5.50	616,000	3,500/12%	74,000	0.80	27,000
Rock Shows/Musical Groups	25	12,000	300,000	6.50	1,950,000	3,500/12%	234,000	0.40	36,000
Name Entertainment	10	12,000	120,000	6.50	780,000	3,500/12%	95,000	0.40	14,000
Other (Rodeo, Tennis, Bingo, College Sports, Boat Shows, Etc.)	20	7,000	140,000	\$5.50	\$ 700,000	\$3,500/12%	84,000	\$0.60	25,000
Totals	159		1,168,000				\$740,000		\$233,000

(150 Event
Days)

* After 10% Amusement Tax.
** Four-wall rental (net of any services recoveries except box office).

Finally, there are two major and one smaller competitive arenas within this trading area. These are Maple Leaf Gardens in Toronto, the Buffalo Memorial Auditorium and the Kitchener Auditorium. Together, these three arenas account for about 40,000 seats already in existence, and appealing, to some extent, to the same potential audience as would the proposed Hamilton Coliseum. Thus, unlike the situations in Denver, Kansas City, Vancouver and Montreal, there would be some degree of direct competition for the available audience potential.

Revenue Projections

The following table summarizes the range of revenue estimates for a typical year after full market potential is achieved.

SUMMARY REVENUE SCHEDULE - TYPICAL YEAR - (1979 DOLLARS)

	<u>High</u>	<u>Low</u>
Facility Rental	\$670,000	820,000
Concessions	210,000	250,000
Advertising	<u>70,000</u>	<u>80,000</u>
Total	<u>\$950,000</u>	<u>\$1,150,000</u>

The detail on which both facility rental and concessions revenue were based is presented in the table opposite. The numbers shown in this table form the mid-point of the range given above.

Event Programme

Based on the limited interview schedule with a number of major coliseums, a target of 110 event days (i.e. days when the coliseum would hold one or more events) excluding junior hockey events appears realistic. Inclusion of junior hockey at Hamilton increases the number of event days to 150. In fact, because both the circus and the ice-shows will have more than one show per day, the actual number of events or shows will be about 159.

Major coliseums or arenas tend to build their event programmes around a professional indoor sports franchise - usually either hockey or basketball, or both. Although this investigation has not attempted to establish definite business commitments, it has been assumed for purposes of this analysis that both a professional and a junior hockey team will play in the Coliseum (see table opposite previous page). Although not investigated in detail, it is felt that a professional basketball franchise would be unlikely to succeed in Hamilton.

With regard to attendance at the professional hockey games a conservative average figure of 8,000, which is typical of a World Hockey League team rather than of a National Hockey League team, has been used. However, it is recommended that every effort be made to thoroughly investigate the possibility of an NHL franchise for Hamilton. It should be emphasized that the success of a professional hockey team in Hamilton will be important to the operating results of the Coliseum.

A junior hockey team has also been included as part of the event program. However, the economic justification for a junior team, should be investigated. It might be preferable to schedule fewer events with a higher average attendance level than could be expected from a junior hockey team.

Most other coliseum facilities, in addition to one or more sports franchises, rely on a circus event running for at least five days and one or two ice shows running for a minimum total of 10 days. These in conjunction with the sports teams form the "cornerstone" of the revenue program.

The remaining events might consist of any of those listed in Appendix 4. However, based on current entertainment programs in other facilities, it would appear that rock shows/musical groups and big name entertainers are the most popular and draw the largest crowds. Rock shows such as Elton John or Paul McCartney and big name entertainers such as Frank Sinatra or Elvis Presley will often sell out a facility of up to 20,000 seats. For this reason the projected event program includes 25 rock shows and 10 shows by name entertainers which would appear to be a reasonable number based on practices in similar facilities. The average attendance at these shows is listed at 12,000 persons. Depending on the quality of the shows this figure might be substantially increased.

Finally, an additional 20 events to be selected from the categories presented in Appendix 4 have been included. The proposed program would be expected to draw about 1,200,000 annual attendance which is realistic when compared with the other facilities surveyed.

Net Annual Facility Rental

The net annual facility rental on the previous table is based on a calculation of total annual revenues from each event type. Total annual revenues are calculated by multiplying total annual attendance for each event by the average ticket price (net of the Ontario 10% amusement tax) which is based on the field survey.

Secondly, the rental arrangement for each event must be considered. This is normally the greater of a guaranteed minimum amount (i.e. \$3,500 for rock shows) or a percentage of gross revenues from the event (i.e., 12% for rock shows).

The type of rental arrangement assumed for this analysis is called "four-wall rental" by the trade. That is, the event being promoted rents only the basic facility. Any additional services required are to be provided by the show with the exception of a box office. In this case, the box office costs will be recovered from the rental income. In some cases the proposed Coliseum management may elect to provide other services for a given show but the cost of these will be directly charged back to the show in question.

The rental arrangements presented in the preceeding table are based on typical arrangements in similar facilities. In total, this would yield an average of \$740,000 from facility rental.

Net Annual Concession Revenue

The net annual concession revenue is based on estimates of per attendee concession revenue multiplied by annual attendance for each type of event. A concessionaire agreement typically yields about 30% of this gross revenue to the lessor.

It is interesting to note that the survey indicated that per attendee concession revenue varied substantially by type of event. The sports events appear to have the highest per attendee concession revenue, which may exceed \$1.00 in some facilities. All facilities contacted served beer and/or alcohol and revenue from these items is included in the per attendee figures.

Thus, on average it can be expected that the proposed event program will yield about \$233,000 in concession revenue.

Annual Advertising Revenues

Advertising revenues are particularly difficult to estimate without knowing more detail on the events program and the facility design. The estimate of \$70,000 to \$80,000 is based on the minimum revenues obtained at other facilities.

Withholding Tax for Foreign Entertainers

Foreign artists and entertainers who are non-residents of Canada are subject to Canadian tax laws. In order to ensure that they do comply with these laws, Revenue Canada obliges local sponsors to deduct 15% of fees paid to non-resident performers as a withholding tax, pending the final settlement that must be made with the Canadian Government at the end of the calendar year. Although this law has been in effect for many years it is only very recently that it has been strictly enforced.

In discussions with representatives of American touring shows and promoters there appeared to be a degree of concern about this withholding tax. In particular, Ringling Brothers stated categorically that they will do no further shows in Canada until something can be done about this withholding tax.

The withholding tax should not seriously interfere with bringing American entertainers into Canada. However, the management of the proposed facility should be thoroughly versed in this area and be able to smooth the way as much as possible for foreign entertainment.

Associated Indirect Revenue Benefits

The revenues discussed above have not considered any of the indirect public and private economic benefits which would occur as a result of developing the proposed facility. Such benefits would probably include:

- Additional revenues to other Hamilton commercial establishments by attendees of any given event. In particular the number of overnight visitors to Hamilton might be increased.
- Additional Revenues for food, accommodation and transportation requirements from members of sports teams, shows, acts, etc.
- The probable need for capital expenditure on ancillary facilities (hotels, restaurants, service station's, etc.) to take advantage of these additional revenues.

- These additional revenues will also give rise to a "multiplier" effect as the revenues are passed through to higher wages or new jobs. This will allow greater spending within the City by the recipients of these additional dollars.
- In addition to the benefits listed above for the private sector, there would probably be a direct realty tax gain to the City from any hotels, restaurants or other facilities developed as a result of the proposed Coliseum. There would also be additional income and sales tax revenues for the provincial and federal governments.

Promotion

The aforementioned revenue projections have assumed that a strong promotional program will be implemented at the outset by the management of the proposed facility. A carefully defined program should be established relative to the various population centres within the overall trade area available.

The facility itself must be advertised vigorously and management should cooperate at the outset with show promoters to develop the market for individual events. A well conceived promotional program will be necessary to ensure the overall success of the facility. Greater expenditures should be anticipated in the earlier years until the Coliseum has become firmly established.

PROJECTED ANNUAL OPERATING COSTS
(in a typical year following full operation)

ADMINISTRATION

Salaries and benefits - General Manager	\$ 40,000
- Accountant/Office Manager	22,000
- 4 Clerks/Secretaries @ \$9,500	38,000
	<u>100,000</u>
Insurance	15,000
Professional fees	25,000
Travel and entertainment	10,000
General office and miscellaneous	<u>25,000</u>
	<u>\$175,000</u>

PROMOTION

Salaries and benefits - Promotion Manager	\$ 35,000
- Secretary/Clerk	10,000
	<u>45,000</u>
Travel allowance and car	10,000
Advertising, brochures, etc.	15,000
Entertainment	<u>10,000</u>
	<u>\$ 80,000</u>

BOX OFFICE

Salaries and benefits - Manager	\$ 20,000
- Six staff @ \$10,000	<u>60,000</u>
	<u>\$ 80,000</u>

Continued opposite next page.

PROJECTED ANNUAL OPERATING COSTS

Introduction

The range of projected annual operating costs are based on the potential activity level, degree of services offered and suggested organization structure discussed in earlier sections. Again it is emphasized that this analysis considers only those annual operating costs which are expected to remain relatively fixed for the level of activity which can be expected realistically in a typical year after the solid establishment of the Hamilton Coliseum on the sport and entertainment map of North America. As explained previously, those costs that are directly related to the staging of specific events have been excluded from our analysis on the grounds that they are recoverable from the lessee of the facility. The opposite table of Projected Annual Operating Costs reflects the above factors. The figures represent the average cost that might be expected in today's dollars. The total cost under each sub-heading has been carried forward to the Highlights of Annual Financial Operating Projections as the low figure for the cost range. This will provide a margin for inflation when considering the cost range in future 1979 dollars for the first year of operation at full potential.

Key cost items were developed in the following manner.

Administration Costs

The salary plus benefit package assumed for the office staff reflects the rates of pay which our experience suggests is required to staff the required positions with the calibre of management and office personnel needed to successfully administer the operation as a separate entity. It would be possible for the City to effect certain savings in total management salaries and other administration costs by combining the management of the Coliseum with that of other City owned or operated facilities such as the planned Convention Centre, Ivor Wynne Stadium and Hamilton Place. The question of joint management of such facilities should be considered carefully as part of any future planning for the Coliseum project.

Insurance costs were developed following discussions with the City Clerk, who administers a blanket policy with the insurers of City owned properties. The allowance of 9¢/\$100 of building and equipment cost is considered more than adequate to cover all forms of peril and public liability that would be required.

The allowance for professional fees of \$25,000 is predicated on the general experience of other major facilities contacted during the analysis. These are chiefly for legal and audit services.

PROJECTED ANNUAL OPERATING COSTS
(continued)

GENERAL BUILDING MAINTENANCE

Salaries and benefits - Building Superintendent	\$ 20,000
- Assistant Superintendent	17,000
- Four general labourers @ \$9,500	38,000
	<u>75,000</u>
Contract maintenance (building structure and seats)	20,000
General supplies	100,000
Security	<u>20,000</u>
	<u>\$215,000</u>

EQUIPMENT OPERATION, REPAIR AND MAINTENANCE

Wages and benefits - Five skilled tradesmen	\$ 75,000
Contract maintenance and repairs (building systems and equipment)	50,000
Utilities and fuel	<u>125,000</u>
	<u>\$250,000</u>

REALTY AND BUSINESS TAXES

Realty taxes	\$400,000
Business taxes	<u>200,000</u>
	<u>\$600,000</u>

Note: With the exception of Equipment Operation, Repair and Maintenance, the figures on this table, represent the low end of the Operating Costs section of the table of Highlights of Annual Financial Operating Projections, expressed in 1979 dollars. The uncertainty of cost projections for Equipment Operation, Repair and Maintenance necessitated a larger range to be expressed for these costs on the Highlight table. The figure of \$250,000 above represents an amount slightly below the mid point of this expected range.

Source: Woods, Gordon & Co.

A \$10,000 travel and entertainment allowance has been provided to permit the General Manager to become involved in key promotional activities. All other general office and miscellaneous administrative expenses could total another \$25,000. This would cover such cost items as telephone, postage, dues and subscriptions, office supplies and office equipment rental.

Promotional Costs

The cost projections for a Promotion Manager and his or her related expenses reflect the importance which should be placed on promotional activities if the Coliseum is to achieve and maintain the potential occupancy levels projected in the previous section.

Box Office

Basic box office services to be provided to all tenants as part of the overall rental arrangement will, based on the operations of similar facilities contacted, require about seven full-time staff including the Box Office Manager. Additional box office expenses, such as the printing and distribution of tickets through outside locations, would represent a charge-back item to the tenant.

General Building Maintenance Cost

Experience of other major multi-purpose arenas contacted indicates that a permanent core staff of six people, including a Building Superintendent, is about the right number to maintain the building and carry out minor on-going repair and maintenance activities. The efforts of this staff will need to be supplemented from time-to-time through contract work to repair seats and perform certain unskilled repair work in the building.

The cost of janitorial and washroom supplies, paint, plaster and other maintenance and repair materials etc., was found to vary widely among the existing coliseums contacted during our analysis. Clearly, some of these costs will vary with the numbers of events held and the attendance levels attracted. However, since it is not practical to identify these costs by event, it is common practice for the facility administration to absorb them as though they were fixed costs to be recovered through the basic overall rental structure rather than through specific charge-backs to individual tenants.

Security costs represent the estimated payment to outside security services for the provision of a watchman during non-business hours and for the maintenance of burglar and fire alarm systems.

Equipment Operation, Repair and Maintenance Costs

Of all cost areas associated with operation of the Coliseum, the costs of operating and maintaining the building support systems and equipment are the most difficult to project with reasonable authority before knowing the exact specifications of the building and its equipment. The experience of other facilities demonstrates that these costs vary widely depending upon the type of equipment included in the building, its overall design, climate factors, degree of occupancy and types of events.

For example, the heart of any major arena/coliseum will be the refrigeration plant serving the ice sheet. This system must be carefully designed and equipment must be chosen to assure reliability and conserve energy.

In coliseums contacted during this survey, ice events included, professional and amateur hockey, ice shows, some major curling events, and some speed skating. No major coliseums were used for community skating, although this is being considered by a few. Ice surface is to NHL-WHA standards of 85 ft. x 200 ft. and the newly constructed Edmonton Coliseum can have the dasher boards adjusted to international hockey size of 30 meters x 60 meters (98.4 ft. x 196.8 ft.)

The average ice rink season lasts from September to the middle of May. In Hamilton the severest conditions for manufacturing ice usually will occur in September and May at which times we have higher average wet bulb temperatures combined with the high internal heat load generated by spectators and the internal lighting load for coloured television.

Several major coliseums have paid sizeable premiums to build in ice changing capability in as few as 6 or 8 hours. However, this capability is seldom used. Insulated floors are now uniformly used for all events such as basketball, tennis, conventions, etc. where the ice can be covered for up to 8 or 10 days with no problems. Where floor anchorings and floor abuse are factors, such as for circuses, horse shows, etc., the ice is removed and events are scheduled to allow sufficient time for making new ice. (12 to 14 hours for good 1/4" to 3/8" surface.)

In discussions with the Consultants involved in the design of the facilities outlined, it was indicated that energy conservation and heat recovery were not major design factors. However, each Consultant has advised, conservation would now be a major factor in total design, to offset the rapidly increasing costs of energy. Reducing energy use and its associated costs can involve initial capital expenditures in the building and/or systems, however, since the cost of energy over the normal building life, far exceeds the original building cost, life cycle costing must be considered in the design stage.

Some experts feel that including inflation our energy costs will escalate at an annual rate between 12 and 15% and this further substantiates the need for this approach.

In the area of operating costs, therefore, it is imperative that various factors affecting energy conservation be considered in the design solution to minimize operating costs and maximize net income.

The uncertainty of cost projections in this entire building system and equipment area has caused us to express a larger percentage range of costs than for other operating areas. Generally, our figures represent a blend of the experience gained by a number of existing multi-purpose arena building superintendents.

It is likely that the Coliseum will require about five skilled workmen at about \$15,000 salary plus benefits each in order to maintain and repair the building systems and equipment. Depending upon the type of equipment installed, the skills of these workmen might be provided by: 2 stationery engineers, 1 electrical and lighting technician, 1 sound technician and 1 carpenter. The work of these individuals would be augmented, as necessary, by contract repairs and maintenance provided by the equipment suppliers and by other outside maintenance contractors. An important point emphasized by more than one building manager is that the maintenance budget must not be constrained to the point where failure of ice making equipment, lights, sound systems etc., can become a real risk. Failures of this nature immediately before or during a performance can quickly destroy the reputation of a facility to both performers and patrons or spectators.

Utility costs for electricity and water and fuel costs have been estimated within the general range found by other like facilities.

Realty and Business Taxes

Realty and business taxes have been based on the assumption that the proposed Ontario municipal tax reform legislation, which would convert the assessment base to market value, becomes law by the time the Coliseum begins operation. According to discussions with the Hamilton regional Assessment Office and with the City Treasury Department, it appears that annual realty taxes would be assessed at about 23 mills against the estimated capital cost of the Coliseum to give a realty tax cost of approximately \$400,000. Under the tax reform proposals business taxes would be based on 50% of the assessed value of the property to bring about a further \$200,000 in annual cost to the Coliseum. (Note: A continuation of existing assessment methods beyond the opening of the Coliseum would not affect realty taxes appreciably, but would reduce business taxes to 30% of the realty taxes or \$120,000, a saving of \$80,000 per annum.)

It is important to note that the annual tax revenue generated by the Coliseum is split among the City, the Regional Municipality of Hamilton-Wentworth and the Boards of Education. In 1976, the City's share of

these revenues will total approximately 39% per the City Treasurer. Assuming a continuation of these revenue sharing proportions until after the Coliseum opening, it is evident that about \$234,000 of tax cost would be returned to the City so that the net tax cost to the City through ownership and operation of the Coliseum would be about \$366,000 per annum. By the same token, the total cost to the Coliseum in realty and business taxes would represent a new tax source which could reduce the burden that would otherwise fall on Hamilton taxpayers by the full \$600,000. Thus, it may be argued that the Coliseum's realty and business taxes truly represent nil cost to City taxpayers. For this reason we have shown the tax cost associated with the Coliseum as a separate item after computing all other cost projections.

Associated Indirect Costs

The previous section outlined some of the indirect revenues which could develop if the proposed facility were to proceed. It should also be pointed out that a number of associated indirect costs may be incurred by the City should the Coliseum proceed. Some of these costs might include:

- Additional costs for traffic and crowd control.
- Potential additional fire fighting men and equipment.
- The cost of maintaining additional utilities to the building.
- The foregone taxes from a possible private development on the chosen site.

A P P E N D I X

1.

ANALYSIS OF EXISTING COLISEUM

CAPITAL COST DATA

A P P E N D I X

ANALYSIS OF EXISTING COLISEUM CAPITAL COST DATA

INTRODUCTION

As is normal for Capital Cost input to a Feasibility Study of this type, projections are based on historical data gathered from recently tendered/built projects of similar function and capacity to that contemplated for Hamilton.

It is important to assemble, analyze and adjust this data in a consistent manner. Equally important is that the sampling of the historical projects should be as wide as possible. Time constraints precluded an in-depth survey but, as is described elsewhere in this study, a final sample of some five buildings has been taken and their data examined and extrapolated.

Initially 20 coliseum projects were reviewed on the basis of data gathered by the Consultant Team. These projects included a variety of sports complexes constructed in the last decade with seating varying between approximately 10,000 and 20,000 seats.

This list was reduced to 10 coliseums which had been constructed in the last six years, and were essentially multi-purpose coliseums.

Consultants, Contractors and Administrators connected with these 10 coliseums were then contacted and detailed cost and building data assembled.

Some of the coliseums were rejected for comparison purposes on the following basis:

Insufficient cost data was available on the Riverfront Coliseum in Cincinnati, and the Capital Centre in Washington.

The Nassau Veterans' Memorial Coliseum in New York was part of a building complex, and proved difficult to extract the coliseum cost from the total construction budget.

The Market Square Coliseum in Indianapolis was built over a road and on top of a parking garage structure. The project also had unusual soil conditions and required a premium cost for piling.

The Cleveland Coliseum was too large, contained extra facilities such as tennis courts, two private restaurants, private suites and a TV studio. Again, it proved too difficult to extract the coliseum costs only.

The remaining projects represent a cross section of coliseums constructed within the last five years, with seating capacities ranging from 14,900 to 16,500 seats. All are multi-purpose coliseums, similar in concept to that envisaged for Hamilton.

A larger sampling might have been preferable. However, this was not possible because of time limitations and the fact that there have been only a limited number of such facilities constructed recently.

DATA

Responses to a standard questionnaire have been analyzed, collated and reported on the attached chart which, together with the following commentary, is self-explanatory:

Col. 4 - Construction Cost:

The net building cost as tendered, exclusive of site development costs and professional fees, but inclusive in some instances as noted, of seats, scoreboard and sound systems. As far as could be ascertained, no abnormal sub-soil nor foundation conditions are included in reported costs.

Col. 5 - Furniture and Equipment:

Statement whether or not seats, scoreboard and sound systems were included in construction cost. If not, they are separately noted. If not and were not available, they are estimated and identified by parenthesis.

Col. 6 - Construction Management Time Saving:

If a form of "fast-tracking" or construction management for the sample project was adopted, then simulation of the slower traditional lump-sum contract has been made on the premise that Construction Management fees are expended to save escalation, which is conservatively assumed to equal 1 1/2 times fee charged. An amount, therefore, is calculated to reasonably simulate the add-on applicable.

Col. 7 - Stipulated Sum Construction Cost:

This is the sum of columns 4, 5 and 6.

Col. 8 - Local Design Factor:

Since projects are in seven states/provinces, it is obvious that local geography and climatic conditions affect design and

correspondingly, costs may be expected to vary. These differences are recognized, but are considered at this point in time to be trade-offs.

Col. 9 - Escalation Index to October 1976:

Estimate cost escalation factor to simulate the probable cost on location, if tenders were opened in October, 1976, with construction commencing on November 1, 1976. Factors were obtained for each location from the local design consultants.

Col. 10 - Local to Ontario Index:

It is necessary to compare costs on an equal basis geographically. Therefore, to transpose, say, New York Coliseum cost to Hamilton, a composite factor is applied to its local cost to discount for wage, material and other cost differences existing between the two centres. The factors are necessarily coarse but, as far as can be determined from single source research, are reasonably representative for 1976/77.

Col. 11 - Hamilton Cost:

The end result of normalizing to a Hamilton location obtained through traditional design and lump-sum tendering procurement procedures. Combination of column 7, multiplied by columns 9 and 10.

Col. 12 - Provision for Energy Conservation:

Research into the sample projects revealed that none had taken into account energy conservation to any significant degree, probably due to being designed prior to the energy crisis. General speaking energy conservation measures imply carefully considered design improvements which can result in heavier Capital Cost expenditures. These, however, have calculable benefits in the form of reduced ongoing operational costs for the life of the project.

PREMIUM
TO BUILD
IN ENERGY
CONSERVED
MEASURES

NOV. 1975
ASSUMED
DATE

HAMILTON COLISEUM FEASIBILITY STUDY
SECTION - BUILDING CONSTRUCTION COST - HISTORICAL DATA TABULATION

1	2	3	4	5			6	7	8	9	10	11	12	13	14	15
Project	Location	Tender Date	Building Construct. Cost	Furniture & Equipment			Construct. Management Time Saving	Stipulated Sum Const. Cost	Local Design Factor	Escalation Index to October 1976	Local-Dist. Index	Hamilton (Stip. Sum) Const. Cost	Energy Conserv. Measures	Fixed Seats Number	Estimated Hamilton Cost/Seat	Remarks
				Seating	Scoreboard	Sound										
McNichols	Denver	July 1973	\$ (000,000) 10.4	\$ (000,000) Incl.	\$ (000,000) (0.25)	\$ (000,000) (0.15)	\$ (000,000) 0.75	\$ (000,000) 11.55		1.29	1.04	\$ (000,000) 15.4		16,500	932	Completed August 1976
Repper	Kansas	April 1973	12.7	Incl.	(0.25)	Incl.	0.70	13.65		1.20	0.99	16.2		16,000	1013	Completed November 1974
Summit	Houston	October 1973	14.4	Incl.	Incl.	Incl.	N/A	14.40		1.22	1.02	17.9		14,906	1200	* Completed October 1975
Coliseum	Edmonton	May 1973	13.7	Incl.	Incl.	Incl.	0.70	14.40		1.28	1.00	18.4		15,294	1203	Completed November 1974
Civic Centre	St. Paul	November 1971	13.7	Incl.	0.175	Incl.	N/A	13.88		(1.48)	0.96	19.7		16,705	1254	Completed January 1973
Coliseum	Richfield	December 1973	20.2	Incl.	Incl.	Incl.	N/A	20.20		(1.20)	1.01	24.6		18,500	1324	Completed October 1974
Market Sq.	Indianapolis	July 1971	16.5	Incl.	Incl.	Incl.	0.50	17.00		(1.50)	0.98	25.0		16,040	1559	Completed September 1974
Nassau Yel.	Unlondale	1968	16.0	0.68	1.0	Incl.	N/A	17.68		(1.70)	0.84	25.2		14,500	1737	* Completed 1972
Riverfront	Cincinnati	October 1973		Information Incomplete										16,430		Completed September 1976
Capital Ctr.	Landover	October 1973		Information Incomplete										17,000		Completed December 1973

* Energies supplied from Central Plant

Local Information / Conditions

Hamilton Information / Conditions

*

() indicates estimated costs!

DESIGN COST 24,000,000

PROVISION
BASED ON
INDEPENDENT
PLANET.

12 for 10.00
15

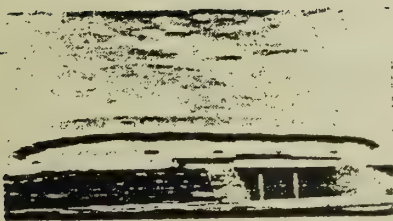
A P P E N D I X

2.

BACKGROUND INFORMATION

ON EXISTING COLISEUMS

M c N I C H O L S S P O R T S A R E N A



Location: Denver, Colorado

Completed: August 1975

Fixed Seating Capacity: 16,500

Owner: Denver

1. SITE INFORMATION

- 1.1 Location: Within outskirts of city.
- 1.2 Reason for Location: Adjacent to Mile High Stadium.
Part of redevelopment to clear slums.
- 1.3 Parking: 3,000 cars on surface lot.
(3,000 under construction for stadium).
- 1.4 Public Transit Access: Good, but not used.
- 1.5 Automobile Access: Near major freeway.
- 1.6 Attraction to Other Development: No.

2. BUILDING INFORMATION

- 2.1 Building Size: 450' x 300' = 135,000 sq. ft.
- 2.2 Seating Capacity: Hockey: 16,500
Standing Room: On open concourse
Total Capacity: 19,000
- 2.3 How Capacity Increased: 2,500 seats on arena floor.
- 2.4 Uses: Sports, stage shows, conventions, exhibits, etc.

2.5 Complementary Facilities:

Exhibition Space:	No
Dressing Rooms:	6
Offices:	8500 sq. ft.
Press Gallery:	yes, and T.V.
Restaurants:	No, but planned
Concessions:	8
Lounges:	No, but needed.
Private Suites:	Open
Meeting Rooms:	3 for press

2.6 Structural System: Steel cable roof on trusses, reinforced concrete.

2.7 Building Materials: Exterior: Metal siding.
Interior: Metal siding.

2.8 Escalators/Elevators: 1 freight, 1 passenger elevator.

3.-- COST/CONSTRUCTION INFORMATION

3.1 Construction Started: August 1973

Construction Completed: August 1975

3.2 Type of Construction Contract: Construction management

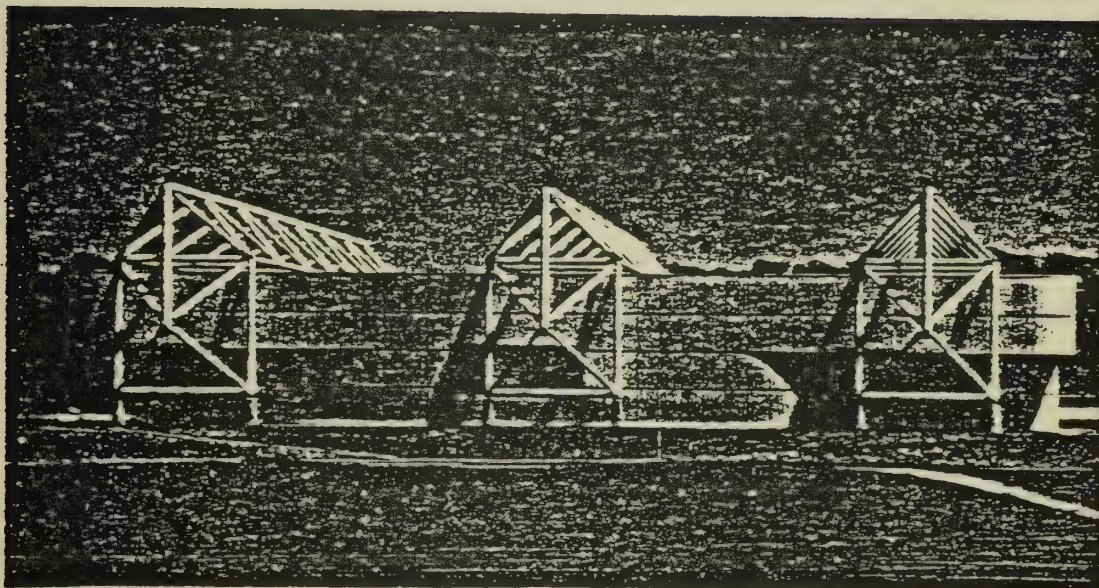
3.3 Total Cost: Land: \$3,400,000 for land, relocation, demolition
Building: \$10,400,000
Parking/Site Services: \$539,000

3.4 Building Cost Breakdown: Architectural: \$7,122,000
Mechanical: 1,628,000
Electrical: 608,000

3.5 Furnishings/Equipment in Building Cost: Seating:)
Ice Making:)\$987,000
Special Lighting:)separate cost.
Sound System: Not included.
Scoreboard: Not included.

3.6 Funding: Bond issues, 3 capital improvement funds.

KEMPER ARENA



Location: Kansas City, Missouri

Completed: November 1974

Fixed Seating Capacity: 16,000

Owner: Kansas City

1. SITE INFORMATION

- 1.1 Location: Industrial area, part of redevelopment over previous stockyards, 1.5 miles from downtown.
- 1.2 Reason for Location: Part of site was donated, and required least investment.
- 1.3 Parking: 3500 cars on surface lot.
- 1.4 Public Transit Access: Via shuttle bus service.
- 1.5 Automobile Access: Two small access roads cause traffic tie-ups.
- 1.6 Attraction to Other Development: No.

2. BUILDING INFORMATION

- 2.1 Building Size: 312' x 432' = 135,000 sq. ft.
- 2.2 Seating Capacity:
- | | |
|-----------------|--------|
| Hockey: | 16,000 |
| Standing Room: | 500 |
| Total Capacity: | 18,000 |
- 2.3 How Capacity Increased: First 7 rows retractable (1700 seats).
Additional seats on arena floor.
- 2.4 Uses: Hockey, basketball, track, boxing, music, variety, horse, livestock shows, conventions, ice shows, etc.

2.5 Complementary Facilities:

Exhibition Space: 28,000 sq. ft. on arena floor
Dressing Rooms: 6
Offices: 6000 sq. ft.
Press Gallery: yes
Restaurants: 1 private
Concessions: 6
Lounges: with restaurant
Private Suites: 25 enclosed
Meeting Rooms:

2.6 Structural System: Tubular steel truss (27' deep) superstructure,
concrete substructure, steel deck.

2.7 Building Materials: Exterior: Insulated steel panels
Interior: Fibreboard ceiling under steel deck.

2.8 Escalators/Elevators: 1 passenger/freight elevator for
handicapped and concessionaire.

3. COST/CONSTRUCTION INFORMATION

3.1 Construction Started: May 1973
Construction Completed: November 1974

3.2 Type of Construction Contract: Construction Management with
guaranteed upset price

3.3 Total Cost: Land: Donated
Building: \$12,700,000
Parking/Site Services: \$ 700,000

3.4 Building Cost Breakdown: Architectural: \$10,100,000
Mechanical: 1,600,000
Electrical: 1,000,000

3.5 Furnishings/Equipment in Building Cost: Seating: yes
Ice Making: yes
Special Lighting: yes
Sound System: yes
Scoreboard: Provided by
hockey team.

3.6 Funding: By Kansas City except for \$3,000,000 donation.

THE SUMMIT



Location: Houston, Texas

Completed: October 1975

Fixed Seating Capacity: 14,906

Owner: Houston

1. SITE INFORMATION

- 1.1 Location: 5 miles from City.
- 1.2 Reason for Location: Because of existing development adjacent to arena.
- 1.3 Parking: 6000 cars underground in adjacent complex.
Parking for arena is leased.
- 1.4 Public Transit Access: Buses within one block.
- 1.5 Automobile Access: Good.
- 1.6 Attraction to Other Development: Commercial, retail development.
(Gray & White Plaza).

2. BUILDING INFORMATION

- 2.1 Building Size: 141,000 sq. ft.
- 2.2 Seating Capacity:

Hockey:	14,906
Standing Room:	None
Total Capacity:	14,906
- 2.3 How Capacity Increased: None
- 2.4 Uses: Hockey, basketball, conventions, concerts, ice shows, circus, political rallies, tennis, gymnastics, boxing, art shows.

2.5 Complementary Facilities:

Exhibition Space:	-
Dressing Rooms:	7
Offices:	Yes
Press Gallery:	Yes
Restaurants:	No
Concessions:	Yes
Lounges:	1
Private Suites:	20
Meeting Rooms:	5

2.6 Structural System: Steel frame, 20' deep two-way roof truss.
(Roof not designed for snow load).

2.7 Building Materials: Exterior: Precast concrete, glass.
 Interior: Concrete, concrete block, precast.

2.8 Escalators/Elevators: 2 elevators for private suites.
 Escalators for public.

3. COST/CONSTRUCTION INFORMATION

3.1 Construction Started: January 1974.
Construction Completed: October 1975.

3.2 Type of Construction Contract: Stipulated Sum.

3.3 Total Cost: Land: Donated.
 Building: \$14,400,000.
 Parking/Site Services: Parking leased. Services from
 central plant.

3.4 Building Cost Breakdown: Architectural: \$12,000,000
Mechanical: 1,400,000
Electrical: 1,000,000

3.5 Furnishings/Equipment in Building Cost: Seating: Yes, \$600,000
Ice Making: Yes
Special Lighting: Yes
Sound System: Yes
Scoreboard: Yes, \$120,000 originally
\$750,000 final cost
for telescreen not in
contract.

3.6 Funding: Private funds with bonds guaranteed by City.

EDMONTON COLISEUM



Location: Edmonton, Alberta

Completed: November, 1974

Fixed Seating Capacity: 15,294

Owner: Edmonton Exhibition Association

1. SITE INFORMATION

- 1.1 Location: Industrial area near downtown.
- 1.2 Reason for Location: Future rapid transit (1978) and freeway adjacent.
Parking available.
- 1.3 Parking: 5000 cars on surface lot.
- 1.4 Public Transit Access: Good via special buses.
- 1.5 Automobile Access: Good
- 1.6 Attraction to Other Development: Has given impetus to adjacent
industry to upgrade.

2. BUILDING INFORMATION

- 2.1 Building Size: 410' diameter= 132,000 sq. ft.
- 2.2 Seating Capacity: Hockey: 15,294
Standing Room: 1,500 (but not permissible by Fire Dep)
Total Capacity: 21,000 (with 4000 seats added in future, .
- 2.3 How Capacity Increased: 11 rows adjacent to ice removable. Seats
on arena floor.
- 2.4 Uses: Hockey, ice capades, rodeos, concerts, circus, etc.

2.5 Complementary Facilities:

Exhibition Space:	85,000 sq. ft.
Dressing Rooms:	7
Offices:	5,000 sq. ft.
Press Gallery:	Yes
Restaurants:	280 seats for dining/lounge
Concessions:	18
Lounges:	Part of restaurant
Private Suites:	No
Meeting Rooms:	Will convert some storage rooms into meeting rooms.

2.6 Structural System: Steel roof frame and structure, reinforced concrete.

2.7 Building Materials: Exterior: Concrete, precast concrete walls.
 Interior: Concrete, precast concrete walls.

2.8 Escalators/Elevators: 1 freight elevator, 2 passenger elevators,
 4 escalators (1 way only).

3. COST/CONSTRUCTION INFORMATION

3.1 Construction Started: Summer 1973.

Construction Completed: November 1974.

3.2 Type of Construction Contract: Construction Management

3.3 Total Cost: Land: \$1,000,000 for 10A., leased from City
 Building: \$13,700,000
 Parking/Site Services: ±\$360,000

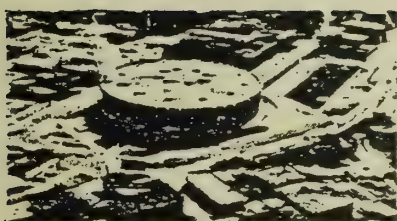
3.4 Building Cost Breakdown: Architectural:)
Mechanical:) Not available
Electrical:)

3.5 Furnishings/Equipment in Building Cost: Seating: yes
Ice Making: yes
Special Lighting: yes
Sound System: yes
Scoreboard: yes, \$240,000

3.6 Funding: City of Edmonton, Edmonton Exhibition Association.

3.7 Additional Work: Pedestrian overpass by depressing road,
retaining walls, railway overpass.
(Not included in building cost).

C I V I C C E N T R E



Location: St. Paul, Minnesota

Completed: January, 1973

Fixed Seating Capacity: 15,705

Owner: St. Paul

1. SITE INFORMATION

- 1.1 Location: Urban, connected to existing complex by pedestrian tunnel.
- 1.2 Reason for Location: Adjacent to existing auditorium/theatre.
- 1.3 Parking: 1660 cars in ramped structure for total complex.
- 1.4 Public Transit Access: Good.
- 1.5 Automobile Access: Good.
- 1.6 Attraction to Other Development: ?

2. BUILDING INFORMATION

- 2.1 Building Size: 404' diameter= 128,000 sq. ft.
- 2.2 Seating Capacity: Hockey: 15,705
 Standing Room: 1,600
 Total Capacity: 18,000
- 2.3 How Capacity Increased: Additional seats on arena floor.
- 2.4 Uses: Multipurpose. All typical events.

2.5 Complementary Facilities:

Exhibition Space:	5000 sq. ft. on arena floor.
Dressing Rooms:	4
Offices:	No
Press Gallery:	Yes
Restaurants:	No
Concessions:	Yes
Lounges:	No
Private Suites:	No
Meeting Rooms:	Yes

2.6 Structural System: Steel & concrete frame.

2.7 Building Materials: Exterior: } Insulated metal panels, concrete bloc
Interior: }

2.8 Escalators/Elevators: None.

3. COST/CONSTRUCTION INFORMATION

3.1 Construction Started: November 1971

Construction Completed: January 1973

3.2 Type of Construction Contract: Stipulated Sum.

3.3 Total Cost: Land: Owned
Building: \$13,722,000.
Parking/Site Services: \$4,007,000 for parking ramp &
pedestrian tunnel.
City provided all site services
up to building.

3.4 Building Cost Breakdown: Architectural: \$9,123,000
Mechanical: \$2,885,000
Electrical: \$1,714,000

3.5 Furnishings/Equipment in Building Cost: Seating: Yes
Ice Making: Yes
Special Lighting: Yes
Sound System: Yes
Scoreboard: \$175,000
not included.

3.6 Funding: ?

THE COLISEUM



Location: Richfield, Ohio (near Cleveland)

Completed: October 1974

Fixed Seating Capacity: 18,500

Owner: Richfield Properties (private)

1. SITE INFORMATION

- 1.1 Location: Suburban, between Cleveland and Akron, on 107 Acres.
- 1.2 Reason for Location: 20 minutes from either city. 4 million people within 1 hour drive.
- 1.3 Parking: 6200 cars on surface lot.
- 1.4 Public Transit Access: Poor. None available.
- 1.5 Automobile Access: Good. Two freeways nearby.
- 1.6 Attraction to Other Development: Hotel, shopping, week-end "resort" on adjacent land.

2. BUILDING INFORMATION

- 2.1 Building Size: 450' x 378' = 170,000 sq. ft.
- 2.2 Seating Capacity: Hockey: 18,500
Standing Room: None
Total Capacity: 22,000
- 2.3 How Capacity Increased: Additional seats on arena floor.
- 2.4 Uses: Multipurpose. All typical events.

2.5 Complementary Facilities:

Exhibition Space: No
Dressing Rooms: 15
Offices: 50
Press Gallery: Yes
Restaurants: 2 private, independently operated
Concessions: 11
Lounges: 4, in corners of building.
Private Suites: 100, on 2 levels.
Meeting Rooms:
Other: 3 tennis courts, built-in T.V. studio.

2.6 Structural System: Steel trusses and joists, metal deck.

2.7 Building Materials: Exterior: }
 Interior: } Concrete, precast concrete tees,
 window walls.

2.8 Escalators/Elevators: 1 freight, 3 passenger elevators to private suites.

3. COST/CONSTRUCTION INFORMATION

3.1 Construction Started: January 1973

Construction Completed: October 1974

3.2 Type of Construction Contract: Negotiated.

3.3 Total Cost: Land: Owned
 Building: \$20,225,000 (including \$75,000 tennis
 Parking/Site Services: courts, T.V. studio, restaurants, etc.
 \$1,000,000 for parking
 \$3,000,000 for site services.

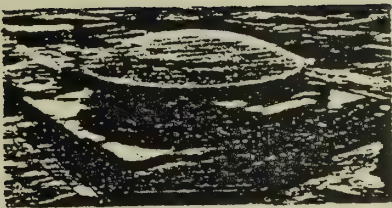
3.4 Building Cost Breakdown: Architectural: \$16,655,000
 Mechanical: 1,720,000
 Electrical: 1,775,000

3.5 Furnishings/Equipment in Building Cost: Seating: Yes, \$800,000
 Ice Making: Yes
 Special Lighting: Yes
 Sound System: Yes
 Scoreboard: Yes

3.6 Funding: Private

3.7 Additional Work: Tennis courts, T.V. studio, restaurant.
 Tunnelling under highway for services.
 8 miles of water supply line.
 3.5 miles of sewer lines to treatment plant.

MARKET SQUARE ARENA



Location: Indianapolis, Indiana

Completed: September 1974

Fixed Seating Capacity: 16,040

Owner: Indianapolis. Leased to Market Square Corporation.

1. SITE INFORMATION

1.1 Location: Downtown

1.2 Reason for Location: Desire to redevelop downtown area.

1.3 Parking: 1500 cars in 5 level twin parking structure, on either side of street. Garage forms podium for arena. Roof of garage forms plaza level.

1.4 Public Transit Access: Good.

1.5 Automobile Access: Good.

1.6 Attraction to Other Development: ?

2. BUILDING INFORMATION

2.1 Building Size: 360' diameter, resting on parking structure.
(Arena floor at 3rd parking level, spanning across street).

2.2 Seating Capacity: Hockey: 16,040
Standing Room: None
Total Capacity: 19,000

- 2.3 How Capacity Increased: Additional seats on arena floor.

2.4 Uses: Sports, concerts, family shows, etc.

2.5 Complementary Facilities:

Exhibition Space: No
Dressing Rooms: 12
Offices: 10-12
Press Gallery: No
Restaurants: 1
Concessions: 12
Lounges: No
Private Suites: No
Meeting Rooms: No

2.6 Structural System: Concrete frame and tension ring, steel joists, metal deck. Parking structure on piles.

2.7 Building Materials: Exterior: Metal panels.
Interior: Perforated metal panels.

2.8 Escalators/Elevators: 4 passenger, 1 freight elevator.
4 escalators.

3. COST/CONSTRUCTION INFORMATION

3.1 Construction Started: August 1971

Construction Completed: September 1974

3.2 Type of Construction Contract: Construction Management.

3.3 Total Cost: Land: \$2,000,000
Building: \$16,500,000 (pro-rated from project cost)
Parking/Site Services: \$4,000,000 for parking garage
(includes \$314,000 for piles)
\$225,000 for demolition.

3.4 Building Cost Breakdown: Architectural: \$13,100,000
Mechanical: 2,500,000
Electrical: 900,000

3.5 Furnishings/Equipment in Building Cost: Seating: Yes
Ice Making: Yes
Special Lighting: Yes
Sound System: Yes
Scoreboard: Not included.
Restaurant: Not included.

3.6 Funding: \$16,400,000 in public bonds. Private capital for remainder.

N A S S A U V E T E R A N S M E M O R I A L C O L I S E U M

Location: Uniondale, New York

Completed: 1972

Fixed Seating Capacity: 14,500

Owner: County of Nassau

1. SITE INFORMATION

- 1.1 Location: Within suburban residential area, on former Mitchell Field air force base.
- 1.2 Reason for Location: Geographic centre, near shopping centre, near colleges, good access.
- 1.3 Parking: 6000 cars on surface lot.
- 1.4 Public Transit Access: Poor. Bus route 2 miles away.
- 1.5 Automobile Access: Good. Adjacent to freeway.
- 1.6 Attraction to Other Development: No, but has generated additional revenue.

2. BUILDING INFORMATION

- 2.1 Building Size: 445' x 325' (oval shape)= 144,000 sq. ft.
(100,000 sq. ft. underground Exhibit Hall adjacent)
(Lobby common to Coliseum and Exhibit Hall).
- 2.2 Seating Capacity: Hockey: 14,500
Standing Room: None
Total Capacity: 16,700
- 2.3 How Capacity Increased: 2100 seats are retractable. Additional seats on arena floor.
- 2.4 Uses: Hockey, tennis, basketball, concerts, exhibit shows, family shows, circus, etc.

2.5 Complementary Facilities:

Exhibition Space: 100,000 sq. ft. separate underground Hall.
Dressing Rooms: 8
Offices: yes
Press Gallery: For 70 people
Restaurants: 1 at 250 seats
Concessions: 12
Lounges: 3
Private Suites: 2
Meeting Rooms: -

2.6 Structural System: Concrete structure, steel trusses.

2.7 Building Materials: Exterior: Glass promenade, stone above.
Interior: Glass promenade, stone above, precast
concrete ceiling in Lobby.

2.8 Escalators/Elevators: 1 passenger, 1 freight elevator.
2 escalators.

3. COST/CONSTRUCTION INFORMATION

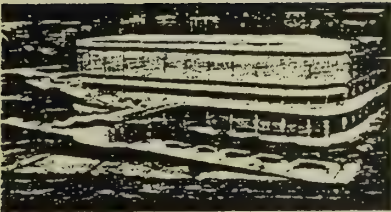
3.1 Construction Started: 1968

Construction Completed: 1972

3.2 Type of Construction Contract: Stipulated Sum.

3.3 Total Cost: Land: Owned by County
Building: \$20,000,000 (\$4.0 M. assumed for Hall)
Parking/Site Services: \$3,665,000 for parking/plaza/services.

CINCINNATI RIVERFRONT COLISEUM



Location: Cincinnati, Ohio

Completed: September 1975

Fixed Seating Capacity: 16,430

Owner: Cincinnati Coliseum Corporation (private)

1. SITE INFORMATION

1.1 Location: Urban

1.2 Reason for Location: Near existing stadium development.
Connected to stadium with pedestrian skyways.

1.3 Parking: 2000 cars on surface lot.
4000 cars indoors.

1.4 Public Transit Access: Good. Two blocks away.

1.5 Automobile Access: Good. Near freeway.

1.6 Attraction to Other Development: Yes.

2. BUILDING INFORMATION

2.1 Building Size: 310' x 420' = 130,200 sq. ft.

2.2 Seating Capacity: Hockey: 16,430
Standing Room: ?
Total Capacity: 19,000

2.3 How Capacity Increased: Two extra rows (1000 seats) added
around top perimeter. Additional seats
on arena floor.

2.4 Uses: Sports, family shows, conventions, concerts, trade shows,
etc.

2.5 Complementary Facilities:

Exhibition Space: No
Dressing Rooms: 8
Offices: Yes
Press Gallery: Yes
Restaurants: 1 private
Concessions: 8
Lounges: Part of Restaurant
Private Suites: 32
Meeting Rooms: 1

2.6 Structural System: Steel frame on piles.

2.7 Building Materials: Exterior:) Precast concrete over steel. Concrete
Interior:) block walls with insulated metal
panels above.

2.8 Escalators/Elevators: 4 passenger, 1 freight elevator.

3. COST/CONSTRUCTION INFORMATION

3.1 Construction Started: November 1973

Construction Completed: September 1975

3.2 Type of Construction Contract: Construction Management

3.3 Total Cost: Land: Owned
Building: \$20,000,000 (\$800,000 for piles)
Parking/Site Services: Information Incomplete.

3.4 Building Cost Breakdown: Architectural:)
Mechanical:) Information not available.
Electrical:)

3.5 Furnishings/Equipment in Building Cost: Seating: } Information
Ice Making: } not
Special Lighting: } available.
Sound System: }
Scoreboard: }

3.6 Funding: Bonds.

CAPITAL CENTRE

Location: Landover, Maryland

Completed: December 1973

Fixed Seating Capacity: 17,000

Owner: The Washington National Arena Limited Partnership (private)

1. SITE INFORMATION

1.1 Location: Suburban

1.2 Reason for Location: Better access & acceptability by public
in suburbs. Downtown is unsafe at night.

1.3 Parking: 6000 cars on surface lot.

1.4 Public Transit Access: Poor. Not within walking distance.

1.5 Automobile Access: Good. Near freeway.

1.6 Attraction to Other Development: Future development anticipated.

2. BUILDING INFORMATION

2.1 Building Size: 200' radius oval structure.

2.2 Seating Capacity: Hockey: 17,000
Standing Room: none
Total Capacity: 20,000

2.3 How Capacity Increased: Additional seating on arena floor.

2.4 Uses: Multipurpose. All typical events.

2.5 Complementary Facilities:

Exhibition Space:	No
Dressing Rooms:	6 team, 3 individual.
Offices:	Yes
Press Gallery:	Yes
Restaurants:	2 (1 private club, 1 public)
Concessions:	10
Lounges:	Part of restaurant.
Private Suites:	1000 seats in boxes.
Meeting Rooms:	

2.6 Structural System: Concrete ring beam, cable roof system, metal deck.

2.7 Building Materials: Exterior: Concrete
 Interior: Concrete, insulated metal panels.

2.8 Escalators/Elevators: 1 freight, 4 passenger elevators to private boxes.
No escalators.

3. COST/CONSTRUCTION INFORMATION

3.1 Construction Started: August 1972

Construction Completed: December 1973

3.2 Type of Construction Contract: Stipulated Sum with guaranteed maximum price.

3.3 Total Cost: Land: Leased
 Building: \$11,000,000 for unfinished shell onl.
 Parking/Site Services: \$ 1,500,000

3.4 Building Cost Breakdown: Architectural:) Not available.
 Mechanical:)
 Electrical:)

3.5 Furnishings/Equipment in Building Cost: Seating: Yes
 Ice Making: Yes
 Special Lighting: Yes
 Sound System: Yes
 Scoreboard: No, provided
 by Owner
 (+ \$1.2
 2.0 M. t
 screen).

3.6 Funding: Private

3.7 Additional Work: All interior finishes, office, food service equipment, private boxes, restaurant, etc. by owner under separate contracts. (Costs not available).

APPENDIX

3.

CONTACTS

HAMILTON COLISEUMLIST OF CONTACTS

<u>Organization</u>	<u>Name</u>
<u>Coliseum Operations</u>	
Edmonton Coliseum	Don Clarke
Oakland Coliseum	Bill Cunningham
Nassau County Memorial Coliseum	Ed Organ
	George Faherty
Birmingham Civic Centre	Casey Janes
Montreal Forum	Al Collinson
Kemper Arena (Kansas City)	Harry Horne
	John Gorman
McNichol Arena (Denver)	Bert Mitchell
Buffalo Memorial Coliseum	Joe Figiola
Kitchener Auditorium	Gib White
 <u>Touring Show Promoters</u>	
Donald K. Donald Productions	Jeana Below
Holiday on Ice/Ice Follies	Joe Heim
Ice Capades	Dick Palmer
Ringling Brothers	Mr. Duryea
Roger Hess Productions	Roger Hess
 <u>Sports Franchise Representatives</u>	
Birmingham Bulls (W.H.A. franchise)	Bob Giroux
 <u>Industry Associations</u>	
Association of Auditorium Managers	Bill Feder
 <u>Other</u>	
Hamilton Place	Larry Russell

A P P E N D I X

4.

POTENTIAL EVENTS

HAMILTON COLISEUMLIST OF POTENTIAL EVENTS

Hockey
Skating
Ice Shows
Basketball
Wrestling
Boxing
Rock Concerts
Circus
Conventions (Large)
Exhibitions and Trade Shows (Large) - Boatshows, etc.
Performances by Name Stars
Religious Functions
Tennis
Indoor Sports (e.g. gymnastics, etc.)
Track and Field
Roller Derbies
Banquets
Closed Circuit T.V.
Cultural Events
Dances
Fairs, Livestock Shows
Pageants, Festivals
Graduations
Flower Shows
Lacrosse
Rodeos
Horse and Dog Shows
Political and Business Rallies
Family Shows
College Sports
Bingo
Stage Shows/Drama

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November 5, 1976





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